Features

Cocoa solid

Conservationists in Ghana are pioneering new community-based approaches that boost incomes for local people from the outset. **Michael Gross** reports.

Wildlife reserves in Africa have been up and running for over a century now, but are they really efficient at protecting endangered wildlife? John Mason, the director of the Ghana-based Nature Conservation Research Centre (NCRC), is strongly convinced that they aren't the solution. "Wildlife reserves look good on paper," Mason said in a recent lecture at the Royal Geographical Society in London, "but at park and reserve level they are failing, because the state agencies that run them often alienate indigenous communities and de-link the people from the land." In these circumstances, Mason says, most land-use decisions by local people around protected areas do not favour conservation. As an example of such failure, Mason cites Amboseli National Park in Kenya, which the Kenyan government was placed under extreme pressure to de-gazette in 2006. Its fate is still open while legal challenges to the decision continue.

As an alternative, Mason champions community-based conservation initiatives. His approach is also known as the Wechiau model, named after the location where it was first put into practice to establish a hippo sanctuary. Back in the early 1990s, hippos in the area of Wechiau, an isolated area in the upper reaches of the Black Volta, were causing trouble to the local farmers and fishermen, often destroying their crops and nets. Some locals had started to hunt down the hippos.

In 1997, the NCRC proposed a new conservation model based on integration of people and animals, rather than separation. Working with traditional leadership and communities, the organisation created the Wechiau Community Hippo Sanctuary — a community-controlled hippo reserve that would retain local ownership and develop eco-tourism, in turn improving the economic fortune of people living within the 17 tribal villages. One of only two locations in Ghana with a significant hippo population, the sanctuary covers over 80 square kilometres. It also hosts over 250 bird species

Bean counts: Extra income for Ghanaian communities is a key consideration for conservationists planning wildlife protection schemes. (Photo: Earthwatch.)

and includes sites of high botanical interest.

From 2000 to 2004, volunteers sent by the environmental charity Earthwatch helped to gather biodiversity data to back the scientific case for the sanctuary. Using this research, Earthwatch and NCRC demonstrated to the tribal chiefs that the creation of a sanctuary would provide a profitable alternative to unsustainable hunting and fishing. Investment was made in infrastructure, equipment and training using funds from Earthwatch, with the aim of leaving behind trained individuals from the community to manage the sanctuary and providing the facilities for an eco-tourism enterprise.

Today the sanctuary realizes annual revenue of around $30,000 from visiting tourists — which has more than offset the costs of creating the reserve and has helped the people in the region as well as the animals. "A total of 15 new jobs have been created and 10 non-direct jobs. Women have been able to earn an independent living through the sale of handicrafts," Mason says. "Today all 17 villages have access to clean water, whereas only two did before. Solar lighting is being installed throughout Wechiau communities, and the roads have been improved."

The government of Ghana is not involved in the initiative, which is run by a local management board, but in 2005 gave it full endorsement.

In recent years, NCRC has started to replicate this approach in five other locations in Ghana. Other conservation sites include one for white-necked rock fowl in the Brong-Ahafo region, one for manatees at Lake Volta, one for elephants and carnivores in Nyankamba and a sanctuary for colobus monkeys in Boabeng-Fiema. At the Avu lagoon, local communities have set aside 150 square kilometres for the protection of the Western sitatunga — the world's only aquatic antelope.

In the Fanteakwa district, the NCRC, in collaboration with Earthwatch and Cadbury–Schweppes, is setting up an eco-tourism initiative designed to enhance biodiversity in cocoa farming. "Preliminary research results indicate that cocoa grown in shaded conditions, where native trees are retained, substantially improves biodiversity on the cocoa farms," says Nat Spring, Head of Research at Earthwatch (Europe). "Our long term goal is to support wildlife while helping Ghana's farming community to boost their livelihoods through a combination of improved farming practices and eco-tourism."

The project will introduce visitors to Ghana's cocoa industry and showcase the benefits of environmentally friendly cocoa farming. Guided visits and hiking trips to functioning cocoa farms, walking and biking tours and camping excursions will be organised by the local community. The visitor centre will also host lectures about cocoa farming, display information about the history of chocolate and sell locally manufactured souvenirs and products. In 2008, the community expects to generate over $15,000 and significantly expand employment opportunities.

John Mason hopes to be able to apply NCRC's community-based approach, which has so far been highly successful in relatively small-scale projects, to one existing wildlife reserve in 2009 and to a national park by 2012. The NCRC is also thinking of transferring the approach to other West African countries, such as Liberia and Sierra Leone.

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Vienna landmark

The Institute of Molecular Pathology has just turned 20: **Graham Tebb** looks at the development and impact of this major lab.

The story of the IMP began in the early 1980s, when the German chemical company Boehringer Ingelheim decided to move into biotechnology, licensing certain products from the American company Genentech. In 1985 the resulting business arrangement led the two firms to the idea of establishing a joint laboratory focusing on basic research into cancer. It was decided to site this laboratory in the Austrian capital and two eminent scientists, Jeff Schatz and Peter Swetly, were charged with getting the idea off the ground.

Swetly and Schatz began with a search for an appropriate scientific director. Their choice fell on Max Birnstiel at the University of Zurich. Birnstiel had been director of his institute for 14 years and had hinted that he would welcome a fresh challenge, so when Schatz approached him he was initially amenable, although when he heard that the new laboratory was to be in Vienna his interest dropped dramatically and his response was "No way!"

Eastern light: Vienna's Institute of Molecular Pathology has been at the heart of the city's life science developments. (Photo: IMP/Lembergh.)